# Appendix C Environmental Commitment Record

An environmental commitment is a measure that the Department or a local agency commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. The purpose of the Environmental Commitments Record (ECR) is to ensure that the Department meets its environmental commitments by: (1) recording each environmental mitigation, compensation, and enhancement commitment made for a project; (2) specifying how each commitment will be met; and (3) documenting the completion of each commitment. The environmental commitments in the table below are commitments that will be included in the Plans, Specifications, and Estimates (PS&E) and construction phases so that the project can be properly built, operated, and maintained.

| Permits and Agreements | | | |
|---|---|---|---|
| **Agency** | **Issue Date** | **Type** | **Expiration Date** |
| United States Army Corps of Engineers (USACOE) | | Section 404 Nationwide Permit | |
| California Department of Fish and Game (CDFG) | | 1602 Lake or Streambed Alteration Agreement | |
| Santa Ana Regional Water Quality Control Board (SARWQCB) | | Section 401 Water Quality Certification | |
| Santa Ana Regional Water Quality Control Board (SARWQCB) | | Waste Discharge Requirements (WDRs) For Construction site Dewatering (De Minimus) (NPDES CAG998001) | |
| State Water Resources Control Board (SRWCB) | | Section 402 National Pollutant Discharge Elimination System (NPDES) (Construction Activity)/Department NPDES Permit CAS000003 and CAS000002 (General Permit) | |
| Orange County Flood Control District (OCFCD) | | Encroachment Permit | |
| Orange County Water District (OCWD) | | Permit for work within the recharge basins | |

| No. | Description of Commitment | Ref. | NSSP Y/N* | Responsible Party/Monitor | Timing/Phase | Task Complete (sign and date) | Comments |
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| **Land Use** | | | | | | | |
| – | See Measure 3 regarding Transportation Management Plan (TMP) provided in Traffic/Transportation. No other avoidance or minimization measures for land use-related impacts are required. | Section 2.1.5<br>Pg. 2.1-17 | N | See Measure TRA-1 | See Measure TRA-1 | | |
| **Community Impacts** | | | | | | | |
| – | See Measure 3 regarding the Transportation Management Plan (TMP) provided in Traffic/ Transportation. No other avoidance or minimization measures for land use-related impacts are required. | Section 2.3.1.4<br>Pg. 2.3-6 | N | See Measure TRA-1 | See Measure TRA-1 | | |
| **Utilities and Emergency Services** | | | | | | | |
| U-1 | **Emergency Services.** The Anaheim Fire Department, the Anaheim Police Department, and the California Highway Patrol require prior notice of the commencement of construction activities and that a minimum of one lane on westbound State Route 91 (SR-91) be maintained | Section 2.4.3<br>p. 2.4-6 (U-1) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |

| No. | Description of Commitment | Ref. | NSSP Y/N* | Responsible Party/Monitor | Timing/Phase | Task Complete (sign and date) | Comments |
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| | during construction. | | | | | | |
| U-2 | Prior to commencement of construction, the Project Engineer will coordinate with all affected utility purveyors to establish exact procedures and specifications for all facilities to be relocated during construction to the satisfaction of the California Department of Transportation (Department). Additionally, the Project Engineer will notify other service purveyors in the vicinity of the project improvements to verify that the proposed activities will not disrupt services to the community. | Section 2.4.3<br>p. 2.4-6 (U-2) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| **Traffic and Transportation** | | | | | | | |
| TRA-1 | A Traffic Management Plan (TMP) shall be included in the Plans, Specifications, and Estimates (PS&E) for implementation by the contractor prior to and during construction of any improvements. The TMP shall consist of prior notices, adequate sign posting, detours, phased construction, and temporary driveways where necessary. The TMP shall specify implementation timing of each Plan element (prior notices, sign posting, detours, etc.) as determined appropriate by the Department. The TMP will also address the temporary closure and detour of the Santa Ana River Trail during construction of the widening of the SR-91 bridge over the Santa Ana River. The trail detour plan will be included in the TMP. Adequate local emergency access shall be provided at all times to adjacent uses. Proper detours and warning signs shall be established to ensure public safety. The TMP shall be devised so that construction shall not interfere with any emergency response or evacuation plans. Construction activities shall proceed in a timely manner to reduce impacts. | Section 2.5.4<br>Pg. 2.5-10 (TRA-1) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| **Visual and Aesthetics** | | | | | | | |
| V-1 | **Trees.** The California Department of Transportation (the Department) will save existing mature trees where practical as identified in the Landscape Plan. | Section 2.6.4<br>Pg 2.6-21 (V-1) | Y | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| V-2 | **Landscape Plan.** A Landscape Plan shall be prepared to minimize visual impacts prior to completion of project plans, specifications, and estimates. The Landscape Plan will be submitted for approval by the California | Section 2.6.4<br>Pg 2.6-21 | Y | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |

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| | Department of Transportation (the Department) District 12 Landscape Architecture Branch. Preparation of the Landscape Plan will be coordinated with the City of Anaheim.<br><br>The Landscape Plan will include the following components, as feasible:<br>• Incorporation of applicable procedures and requirements as detailed in the publication "Caltrans Highway Design Manual, Topic 902, Highway Planting Standards and Guidelines" (September 2006), and the Orange County General Plan.<br>• Identification of areas within or adjacent to the project limits for revegetation, including landscaping for graded areas with noninvasive plant species consistent with adjacent vegetation to the greatest extent possible. The landscape plant palette shall not contain species that have been identified as invasive by the California Invasive Plant Council (Cal-IPC) and the United States Department of Agriculture (USDA), at a minimum.<br>• Planting of trees and shrubs is required along State Route 55 (SR-55) and State Route 91 (SR-91) to enhance the visual character and quality of the area.<br>• Planting shall include a 3-year plant maintenance/replacement establishment period.<br>• Water quality features are to be visually compatible by vegetative screening and placement. These elements need to be consistent with the considerations in the "Master Plan of Freeway and Transit Corridor Enhancements: Creating a Quality Environment Along Orange County's Transportation Network." | (V-2) | | Qualified Environmental Staff | Construction | | |
| V-3 | **Retaining Walls.** Retaining walls will incorporate aesthetic treatments such as colored concrete and the use of natural materials and forms that complement the surrounding environment. At the discretion of the District Landscape Architect, wall design elements will be consistent with the "Master Plan of Freeway and Transit Corridor Enhancements: Creating a Quality Environment | Section 2.6.4<br><br>Pg 2.6-21 (V-3) | Y | Project Engineer<br><br>Resident Engineer<br><br>Qualified | PS&E<br><br>Construction<br><br>Construction | | |

| No. | Description of Commitment | Ref. | NSSP Y/N* | Responsible Party/Monitor | Timing/Phase | Task Complete (sign and date) | Comments |
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| | Along Orange County's Transportation Network," City of Anaheim planning documents, and input received from the City of Anaheim. | | | Environmental Staff | | | |
| V-4 | **Lighting Plan.** The lighting fixtures will be selected and installed to minimize glare on adjacent properties and into the night sky. Lighting will be shielded with nonglare hoods and focused within the project State right-of-way (ROW) for State Route 91 (SR-91). The lighting plan will be reviewed and approved by the California Department of Transportation (the Department) District 12 Landscape Architect prior to construction to ensure compliance with these criteria. | 2.6.4<br>Pg 2.6-22 (V-4) | N | Resident Engineer<br>Qualified Environmental Staff | Construction<br>Construction | | |
| **Cultural Resources** | | | | | | | |
| CR-1 | If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. | Section 2.7.4<br>Pg. 2.7-4 (CR-1) | N | Project Engineer<br>Resident Engineer<br>Qualified Environmental Staff | PS&E<br>Construction<br>Construction | | |
| CR-2 | If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbance and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner shall be contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendant (MLD). At this time, the person who discovered the remains will contact the California Department of Transportation, District 12 Environmental Planning Branch, so that it may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable. | Section 2.7.4<br>Pg. 2.7-4 (CR-2) | N | Project Engineer<br>Resident Engineer<br>Qualified Environmental Staff | PS&E<br>Construction<br>Construction | | |

| No. | Description of Commitment | Ref. | NSSP Y/N* | Responsible Party/Monitor | Timing/Phase | Task Complete (sign and date) | Comments |
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| **Water Quality and Storm Water Runoff** | | | | | | | |
| WQ-1 | The project will comply with the provisions of the Department Statewide National Pollutant Discharge Elimination System (NPDES) Permit (Order No. 99-06 DWQ, NPDES No. CAS00003) and the NPDES General Permit, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) and any subsequent permit in effect at the time of construction. | Section 2.9.4<br>Pg. 2.9-8 (WQ-1) | N | Project Engineer<br>Resident Engineer | During PS&E<br>Construction | | |
| WQ-2 | A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented to address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP will identify the sources of pollutants that may affect the quality of storm water and include the construction site best management practices (BMPs) to control pollutants such as sediment control, catch basin inlet protection, construction materials management, and non-storm water BMPs. All construction site BMPs will follow the latest edition of the *Storm Water Quality Handbooks: Construction Site Best Management Practices Manual* as stated in Section 3.4.2.1 (page 3-6) to control and minimize the impacts of construction-related activities, material, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-storm water BMPs. | Section 2.9.4<br>Pg. 2.9-8 (WQ-2) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| WQ-3 | The California Department of Transportation (Caltrans) approved treatment Best Management Practices (BMPs) will be implemented to the Maximum Extent Practicable (MEP) consistent with the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit, and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Department) Properties, Facilities, and Activities (Order No. 99-06-DWQ, NPDES No. CAS000003) and any subsequent permits. Treatment BMPs may include biofiltration strips/swales, infiltration basins, detention devices, dry weather flow diversion, | Section 2.9.4<br>Pg. 2.9-8 (WQ-3) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |

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| | Gross Solids Removal Devices (GSRDs), media filters, and wet basins. | | | | | | |
| WQ-4 | Design Pollution Prevention Best Management Practices (BMPs) will be implemented, such as preservation of existing vegetation; slope/surface protection systems (permanent soil stabilization); concentrated flow conveyance systems such as ditches, berms, dikes, swales, overside drains, flared-end sections, and outlet protection/velocity dissipation devices. | Section 2.9.4<br>Pg. 2.9-9 (WQ-4) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| WQ-5 | Construction site dewatering must comply with the General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (*De Minimus*) Threat to Water Quality (Order No. R8-2009-0003, National Pollutant Discharge Elimination System [NPDES] No. CAG998001), and any subsequent updates to the permit at the time of construction. Dewatering Best Management Practices (BMPs) must be used to control sediment and pollutants, and the discharges must comply with the Waste Discharge Requirements (WDRs) issued by the Santa Ana Regional Water Quality Control Board (RWQCB). | Section 2.9.4<br>Pg. 2.9-9 (WQ-5) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| **Geology/Soils** | | | | | | | |
| GEO-1 | During final design, a Final Geotechnical Design Report (GDR) and a Final Foundation Report (FFR) shall be prepared for the project. As part of the GDR and FFR, a minimum of 20 soil borings shall be drilled at the site in order to provide needed design parameters for the proposed Type 1 walls and tieback retaining walls. The GDR will evaluate the potential for the construction of standard retaining walls, and the FFR will evaluate the potential for the tieback retaining walls. Parameters such as bearing capacity, settlement, liquefaction, corrosion, seismic parameters, expansive soils, and construction considerations can be addressed in the Final GDR and FFR based on field and laboratory findings. The recommendations of the Final GDR and FFR shall be incorporated into the final design of the project. Since liquefaction is a factor in certain areas within the project limits, the project shall incorporate deepened foundations and/or increased depth of piles as needed. | Section 2.10.4<br>Pg. 2.10-10 (GEO-1) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |

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| GEO-2 | During final design, project design will address corrosion-resistant design for construction. The Final Geotechnical Design Report (GDR) will determine the type of metal or type of concrete mix that will be resistant to corrosion. | Section 2.10.4<br>Pg. 2.10-10 (GEO-2) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| GEO-3 | During construction activities, implementation of Erosion Control Best Management Practices (BMPs) in the Storm Water Pollution Prevention Plan (SWPPP) as discussed in Section 2.9, Water Quality and Storm Water Runoff, shall be required. | Section 2.10.4<br>Pg. 2.10-10 (GEO-3) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| GEO-4 | Prior to construction, the limits of proposed soil removals shall be evaluated due to limited soil removal and recompaction that may occur on native soils located beneath the Type-1 walls. All exposed native soil shall then be inspected and approved by the Resident Engineer (RE). In addition, all soft soil areas shall be stabilized prior to the construction of the retaining walls. | Section 2.10.4<br>Pg. 2.10-10 (GEO-4) | Y | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| GEO-5 | During final design, exposed soil on which the foundations for proposed retaining walls will be placed will be surface compacted to 95 percent. The foundations shall also be inspected and approved by a geotechnical representative from the Department, District 12. If encountered during construction activities, all soft soils that are not suitable for placement of foundations should be removed to a competent base, moisture-conditioned, and recompacted to 95 percent relative compaction prior to construction. | Section 2.10.4<br>Pg. 2.10-11 (GEO-5) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| GEO-6 | Prior to construction, all areas to receive fill should be cleared and grubbed of vegetation and trash. The clearing and grubbing should be in accordance with Section 16 of the latest Caltrans Standard Specifications edition. The import soil shall consist of granular, free-draining material with an Expansion Index of less than 50 and/or a Sand Equivalent of 20 or more. The fill should be benched into the existing slopes per Section 19-6.01, "Placement," of the latest Standard Specifications edition. Structural backfill that will be placed behind the retaining walls shall conform to Section 19, "Earthwork," of the latest Caltrans Standard Specifications edition. Similar grading procedures apply to fill placed along State Route 91 (SR-91) at the Tustin Avenue off-ramps. | Section 2.10.4<br>Pg. 2.10-11 (GEO-6) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |

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| GEO-7 | All existing utilities located beneath the proposed retaining walls shall be properly identified prior to the start of construction activities. | Section 2.10.4<br>Pg. 2.10-11 (GEO-7) | N | Project Engineer | PS&E | | |
| **Paleontology** | | | | | | | |
| PAL-1 | Prior to the completion of Plans Specifications and Engineering (PS&E), in accordance with the guidelines on the California Department of Transportation Standard Environmental Reference (SER), Volume I, Chapter 8, a Paleontological Mitigation Plan (PMP) will be prepared by a qualified paleontologist for inclusion in the PS&E and implemented during the construction phase of the project. The PMP should generally discuss the level of sensitivity of formations encountered along the project alignment; monitoring methods for areas identified as likely to contain paleontological resources; salvage methods and procedures; resource collection, processing, identification, documentation, and curation activities and procedures; and discuss the required preparation of a Paleontological Monitoring Report (PMR) at the conclusion of the project that follows the Department SER Volume I, Chapter 8. Guidelines. The PMP will include, but not be limited to, the following steps:<br>1. A qualified paleontologist or his/her representative will attend the pregrade meeting. At this meeting the paleontologist will explain the likelihood for encountering paleontological resources, what resources may be discovered, and the methods that will be employed if anything is discovered (see below).<br>2. All employees, subcontractors, and Contractor's representatives on site involved in subsurface-disturbing activities must receive a 1-hour paleontological resource awareness training program provided by the Paleontological Salvage Team prior to performing on-site work.<br>3. During construction excavation, a qualified vertebrate paleontologic monitor shall initially be | Section 2.11.4<br>Pg. 2.11-3 (PAL-1) | N | Project Engineer<br>Resident Engineer<br>Qualified Environmental Staff | PS&E<br>Construction<br>Construction | | |

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| | present on a full-time basis whenever excavation will occur within the sediments that have a high sensitivity rating and on a spot-check basis in sediments that have a low sensitivity rating. Monitoring may be reduced to a part-time basis if no resources are being discovered in sediments with a high sensitivity rating (monitoring reductions and when they occur will be determined by the qualified Principal Paleontologist). The monitor shall inspect fresh cuts and/or spoils piles to recover paleontological resources. The monitor shall be empowered to temporarily divert construction equipment away from the immediate area of the discovery. The monitor shall be equipped to rapidly stabilize and remove fossils to avoid prolonged delays to construction schedules. If large mammal fossils or large concentrations of fossils are encountered, Caltrans shall consider using heavy equipment on site to assist in the removal and collection of large materials.<br>4. Localized concentrations of small (or micro-) vertebrates may be found in all native sediments. Therefore, it is recommended that these native sediments occasionally be spot-screened through one-eighth to one-twentieth-inch mesh screens to determine whether microfossils are present. If microfossils are encountered, additional sediment samples (up to 3 cubic yards, or 6,000 pounds) shall be collected and processed through one-twentieth-inch mesh screens to recover additional fossils.<br>5. Any recovered specimens shall be prepared to the point of identification and permanent preservation. This includes the picking of any washed mass samples to recover small invertebrate and vertebrate fossils, the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and the storage cost, and the addition of approved chemical hardeners/stabilizers to fragile specimens.<br>6. Specimens shall be identified to the lowest taxonomic level possible and curated into an | | | | | | |

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| | institutional repository with retrievable storage. The repository institutions usually charge a one-time fee based on volume, so removing surplus sediment is important. The repository institution may be a local museum or university that has a curator who can retrieve the specimens on request. Caltrans requires that a draft curation agreement be in place with an approved curation facility prior to the initiation of any paleontological monitoring or mitigation activities.<br>7. A PMR shall be prepared with an appended, itemized inventory of specimens. When submitted to the Lead Agency, the report and inventory would signify completion of the program to mitigate impacts to paleontological resources. The report should also be submitted to the museum repository along with the fossil specimens.<br>The above-listed measures are standard minimization measures for projects that have the potential to encounter sensitive sediments. During the development of the PMP, additional measures may be added; this list is only meant to provide a summary of what may be involved, as additional documentation is often needed on projects that involve Caltrans. | | | | | | |
| **Hazardous Waste and Materials** | | | | | | | |
| HW-1 | Areas of exposed soils within the Department's right-of-way, which will be disturbed during excavation/grading activities, shall be collected, tested, and analyzed for lead during the design stage after roadway geometric plans have been approved. If lead is found at levels considered hazardous, handling of the impacted soil would be addressed appropriately. | Section 2.12.4<br>Pg. 2.12-7 (HW-1) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |

| No. | Description of Commitment | Ref. | NSSP Y/N* | Responsible Party/Monitor | Timing/Phase | Task Complete (sign and date) | Comments |
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| HW-2 | Yellow thermoplastic traffic stripes and pavement markings are typically removed using sand or air blasting equipment prior to construction. Workers are required to adhere to Occupational Safety and Health Act (OSHA) standards, which describe necessary personal safety equipment and work procedures. All yellow paint debris shall require proper containment during and after removal and will be properly handled. After blasting, the blasted material shall be collected and disposed of at an appropriate hazardous materials facility. If the yellow paint debris shall be found to contain lead and chromium at actionable levels, the debris will be disposed of in a Class I landfill. | Section 2.12.4<br>Pg. 2.12-7 (HW-2) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| HW-3 | During the design phase, presumed asbestos-containing (PAC) materials, including rails, bearing pads, support piers, expansion joint material of bridges, asphalt, and concrete will be surveyed and assessed in compliance with 40 Code of Federal Regulations (CFR) 763. If the extent of improvement to any of the exiting bridges within the project site required significant modification or demolition of any part of the bridge components, then pursuant to South Coast Air Quality Management District (SCAQMD) regulations, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and California Occupational Safety and Health Act (Cal OSHA) certified building inspector to determine the levels of asbestos in structures (including bridge structures) that will be renovated or demolished as part of this project. SCAQMD Rule 1403 (Asbestos Emissions From Demolition/Renovation Activities) shall be implemented for any demolition or renovation work involving asbestos-containing materials. | Section 2.12.4<br>Pg. 2.12-7 (HW-3) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| HW-4 | If unknown wastes or suspect materials are discovered during construction by the contractor, all excavation activities in the immediate vicinity of the area of concern shall be suspended. The Department, in conjunction with other appropriate agencies, shall develop a plan to investigate suspect materials and determine what corrective measures, if any, may be required to safeguard public health and the environment. | Section 2.12.4<br>Pg. 2.12-8 (HW-4) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |

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| **Air Quality** | | | | | | | |
| A-1 | In order to minimize construction-related emissions, all construction vehicles and construction equipment shall be required to be equipped with the State-mandated emission control devices pursuant to State emission regulations and standard construction practices. Short-term construction particulate matter less than 10 microns in diameter ($PM_{10}$) emissions shall be further reduced with the implementation of required dust suppression measures outlined within South Coast Air Quality Management District (SCAQMD) Rule 403, Caltrans Standard Specifications for construction [Section 10 and 18 (Dust Control), and Section 39-3.06 (Asphalt Concrete Plants)]. | Section 2.13.3.3<br>Pg. 2.13-17 | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| **Noise** | | | | | | | |
| N-1 | To minimize the construction noise impact for sensitive land uses adjacent to the project site, the construction contractor shall comply with the California Department of Transportation Standard Specifications, Section 14.8.02, "Noise Control," and also with Standard Special Provisions S5-310. Noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA $L_{eq}(h)$ at a distance of 50 feet (ft). The Contractor shall use an alternative warning method instead of a sound signal unless required by safety laws. In addition, the Contractor shall equip all internal combustion engines with the manufacturer-recommended muffler and shall not operate any internal combustion engine on the job site without the appropriate muffler. | Section 2.14.3<br>Pg. 2.14-8 (N-1) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| **Natural Communities** | | | | | | | |
| BIO-1 | Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around riverine areas adjacent to the project footprint to designate Environmentally Sensitive Areas (ESAs) to be preserved. No grading or fill activity of any type will be permitted within these ESAs. In addition, heavy equipment, including motor vehicles, will not be allowed to operate within the ESAs. All construction equipment will be operated in a manner so as to prevent accidental damage to nearby preserved areas. No structure of any | Section 2.15.4<br>Pg. 2.15-12 (BIO-1) | N | Project Engineer<br>Resident Engineer<br>Qualified Environmental Staff | PS&E<br>Construction<br>Construction | | |

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| | kind, or incidental storage of equipment or supplies, will be allowed within these protected zones. Silt fence barriers will be installed at the ESA boundary to prevent accidental deposition of fill material in areas where vegetation is immediately adjacent to planned grading activities. | | | | | | |
| **Wetlands and Other Waters** | | | | | | | |
| BIO-2 | The existing riverine habitat falls under the regulatory jurisdiction of the United States Army Corps of Engineers (ACOE) pursuant to Section 404 of the Clean Water Act (CWA) and the California Department of Fish and Game (CDFG) pursuant to Section 1600 of the California Fish and Game Code. Compensatory mitigation for riverine habitat will be required for ACOE Section 404 and CDFG Section 1600 permitting. Riverine habitat subject to ACOE and CDFG jurisdiction may be mitigated at a minimum mitigation-to-impact ratio up to 3:1 for permanent impacts and 1:1 for temporary impacts. Mitigation may involve in-lieu fee transfer to an organization that manages and restores similar riverine habitat. Final details for compensatory mitigation will be evaluated through coordination between Caltrans and the resource agencies. | Section 2.15.4<br>Pg. 2.15-26 (BIO-2) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| **Animal Species** | | | | | | | |
| BIO-3 | In order to avoid impacts to nesting birds, any native vegetation or tree (native or exotic) trimming activities will occur outside of the nesting bird season (February 15–August 31). In addition, construction activities for the Santa Ana River Bridge will occur outside of the nesting bird season (February 15–August 31). In the event that bridge construction is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer should be clearly marked in the field by construction personnel under guidance of the biologist, and construction work will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active. If construction is anticipated during the nesting season, it is suggested to conduct an active mud | Section 2.15.4<br>Pg. 2.15-29 (BIO-3) | N | Project Engineer<br>Resident Engineer<br>Qualified Environmental Staff | PS&E<br>Construction<br>Construction | | |

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| | nest removal plan on the east side of the bridge that will be directly impacted by the project activities prior to nesting season. | | | | | | |
| BIO-4 | A qualified bat biologist shall perform a preconstruction survey since bat roosts can change seasonally. The surveys shall include a combination of structure inspection, exit counts, and acoustic surveys for purposes of species identification. | Section 2.15.4<br>Pg. 2.15-30 (BIO-4) | Y | Project Engineer<br>Resident Engineer<br>Qualified Environmental Staff | PS&E<br>Construction<br>Construction | | |
| BIO-5 | If preconstruction surveys find that bats are utilizing the bridge structure, the following measures should be followed: In order to prevent impacts to bridge and crevice-nesting bats, all bridgework shall be scheduled between September 1 and November 30 to avoid hibernating bats and the maternity season. If this is not feasible, bat exclusion devices will need to be installed under the supervision of a qualified biologist. Such exclusion efforts must be continued to keep the structures free of bats until the completion of construction. All bat exclusion techniques shall be coordinated among the District Biologist and the resource agencies. | Section 2.15.4<br>Pg. 2.15-30 (BIO-5) | Y | Project Engineer<br>Resident Engineer<br>Qualified Environmental Staff | PS&E<br>Construction<br>Construction | | |
| **Invasive Species** | | | | | | | |
| BIO-6 | In compliance with Executive Order (EO) 13112, invasive species will be removed from the project work area and controlled during construction. | Section 2.15.4<br>Pg. 2.15-32 (BIO-6) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| BIO-7 | Inspection and cleaning of construction equipment will be performed to minimize the importation of nonnative plant material, and eradication strategies (i.e., weed abatement programs) will be employed should an invasion occur during construction. | Section 2.15.4<br>Pg. 2.15-32 (BIO-7) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |
| BIO-8 | Graded areas will not be revegetated with plant species listed in California Invasive Plant Council's (Cal-IPC's) California Invasive Plant Inventory with a High or Moderate rating. | Section 2.15.4<br>Pg. 2.15-32 (BIO-8) | N | Project Engineer<br>Resident Engineer | PS&E<br>Construction | | |

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